

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An ultrasonic motor, comprising:
a stator having an annular piezoelectric element, wherein the piezoelectric is polarized into a plurality of segments along the circumference;
a rotor arranged to face the stator, wherein the piezoelectric element vibrates the stator such that the rotor is rotated, and wherein the piezoelectric element has a first surface facing the stator and a second surface opposite from the first surface;
an electrode plate fixed to the second surface of the piezoelectric element; and
a flexible plate fixed to the electrode plate, wherein the flexible plate includes:
a flexible substrate;
a conductor arranged on part of the flexible substrate to be electrically connected to the electrode plate; and
a reinforcement arranged on the flexible substrate at a position that is off the ~~conductor~~
conductor,
wherein the conductor suppresses vibration generated at a portion of the piezoelectric element that corresponds to the conductor, and wherein the reinforcement suppresses vibration generated at a portion of the piezoelectric element that is off the conductor, thereby stabilizing vibration of the piezoelectric element in the circumferential direction.

2-9 (Cancelled.)

10. (Previously presented) The motor according to claim 1, wherein the reinforcement is formed such that the rigidity of the flexible plate changes at an interval that corresponds to one or half wavelength of vibration generated by the piezoelectric element.

11. (Previously presented) The motor according to claim 1, wherein the reinforcement reinforces the flexible substrate at positions spaced by an interval that corresponds to one or half wavelength of vibration generated by the piezoelectric element.

12. (Cancelled)

13. (Previously presented) The motor according to claim 1, wherein the reinforcement includes a plurality of balancing portions and a plurality of connecting portions, wherein the balancing portions are spaced by a predetermined interval in the circumferential direction of the piezoelectric element, and wherein each connecting portion connects an adjacent pair of the balancing portions.

14. (Currently amended) The motor according to claim 13, ~~wherein the conductor suppresses vibration generated at a portion of the piezoelectric element that corresponds to the conductor, and wherein the balancing portions suppress vibration generated at a portion of the piezoelectric element that is off the conductor, thereby stabilizing vibration of the piezoelectric element in the circumferential direction.~~

15. (Previously presented) The motor according to claim 14, wherein the connecting portions are thinner than the balancing portions in respect of the radial direction of the piezoelectric element so that the connecting portions do not hinder vibration of the piezoelectric element.

16. (Previously presented) The motor according to claim 13, wherein the balancing portions are arranged at an interval that corresponds to one or half wavelength of vibration generated by the piezoelectric element.

17. (Previously presented) The motor according to claim 13, wherein the balancing portions and the connecting portions are integrally formed.

18. (Previously presented) The motor according to claim 1, wherein the flexible plate further includes a cover portion that partly covers the conductor, and wherein the cover portion is formed of the same material as the reinforcement.

19. (Previously presented) The motor according to claim 1, wherein the segments of the piezoelectric element include a group of A-phase segments and a group of B-phase segments, wherein high frequency voltages of different phases are applied to the A-phase segment group and the B-phase segment group, respectively, wherein the electrode plate includes an A-phase electrode corresponding to the A-phase segment group and a B-phase electrode corresponding to the B-phase segment group, wherein the conductor includes an A-phase conductor member corresponding to the A-phase electrode and a B-phase conductor member corresponding to the B-phase electrode, and wherein each of the A-phase conductor member and the B-phase conductor member has an end portion that contacts only a part of the corresponding one of the A-phase electrode and the B-phase electrode.

20. (Previously presented) The motor according to claim 19, wherein each end portion includes a base portion and a comb-like portion, wherein the base portion extends along the circumferential direction of the piezoelectric element, and wherein the comb-like portion extends outward from the base portion in respect of the radial direction of the piezoelectric element.

21. (Currently Amended) The motor according to claim 19, wherein the segments of the piezoelectric element further include a feedback segment located between the A-phase segment group and the B-phase segment group, wherein the electrode plate ~~further~~ further includes a feedback electrode corresponding to the feedback segment, wherein the conductor further includes a feedback conductor member contacting the feedback electrode and a grounding conductor member surrounding the feedback conductor member, and wherein the A-phase conductor member and the B-phase conductor member are located outside of the grounding conductor member.

22. (Currently amended) A flexible plate fixed to a piezoelectric element with an electrode plate in between, the piezoelectric element including a plurality of polarized segments, the flexible plate comprising:
a flexible substrate;
a conductor arranged on part of the flexible substrate to be electrically connected to the electrode plate; and
a reinforcement arranged on the flexible substrate at a position that is off the conductor,
wherein the conductor suppresses vibration generated at a portion of the piezoelectric element that corresponds to the conductor, and wherein the reinforcement suppresses vibration generated at a portion of the piezoelectric element that is off the conductor, thereby stabilizing vibration of the piezoelectric element in the circumferential direction.

23. (Previously presented) The flexible plate according to claim 22, wherein the reinforcement is formed such that the rigidity of the flexible plate changes at an interval that corresponds to one or half wavelength of vibration generated by the piezoelectric element.

24. (Previously presented) The flexible plate according to claim 22, wherein the reinforcement reinforces the flexible substrate at positions spaced by an interval that corresponds to one or half wavelength of vibration generated by the piezoelectric element.

25. (Cancelled)

26. (Previously presented) The flexible plate according to claim 22, wherein the reinforcement includes a plurality of balancing portions and a plurality of connecting portions, wherein the balancing portions are spaced by a predetermined interval in a direction along which the piezoelectric element extends, and wherein each connecting portion connects an adjacent pair of the balancing portions.

27. (Currently amended) The flexible plate according to claim 26, ~~wherein the conductor suppresses vibration generated at a portion of the piezoelectric element that corresponds to the conductor, and~~ wherein the balancing portion suppresses vibration generated at a portion of the piezoelectric element that is off the conductor, ~~thereby stabilizing vibration of the entire piezoelectric element.~~

28. (Previously presented) The flexible plate according to claim 27, wherein the connecting portions are thinner than the balancing portions so that the connecting portions do not hinder vibration of the piezoelectric element.

29. (Previously presented) The flexible plate according to claim 26, wherein the balancing portions are arranged at an interval that corresponds to one or half wavelength of vibration generated by the piezoelectric element.

30. (Previously presented) The flexible plate according to claim 26, wherein the balancing portions and the connecting portions are integrally formed.

31. (Previously presented) The flexible plate according to claim 22, wherein the flexible plate further includes a cover portion that partly covers the conductor, and wherein the cover portion is formed of the same material as the reinforcement.

REMARKS

The Office Action mailed 6 May 2003. Claims 1 and 10-31 are currently pending in the application. Applicant respectfully notes that the Summary of the Office Action indicates that claims 1 and 22 are presently pending in the application. Application requests that the record in the application be corrected to indicate that claims 1 and 10-31 are currently pending.

By this amendment, claims 12 and 25 have been cancelled without prejudice.

REJECTION UNDER 35 USC 103(a):

Claims 1 and 22 stand rejected under 35 USC 103(a) over Naito in view of Suzuki and further in view of Shirasaki. Applicant respectfully traverses the instant rejection.

In paragraph 4 of his Action the Examiner indicated that claims 10-21 and 23-31 were objected to as being dependent on a rejected base claim, but would be allowable if they were rewritten in independent form to include all of the limitations of their respective base claim and any intervening claims.

Responsive to the indication of the Examiner, applicant has amended claim 1 to include all of the limitations of claim 12. It follows that claim 1, as amended, is essentially claim 12 rewritten in independent form to include all of the limitations of its base claim, i.e. claim 1. Claim 12 previously depended directly from claim 1 and therefore there were no intervening claims.

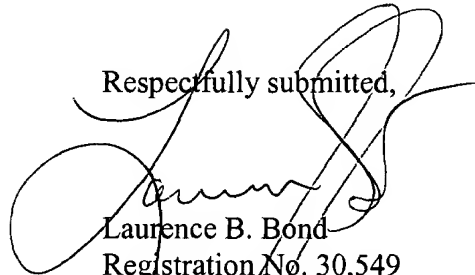
With reference to claim 22, applicant has amended claim 22 to include all of the limitations of claim 25. Claim 22, as amended, is essentially claim 25 rewritten in independent form to include all of the limitations of its base claim, i.e. claim 22. Claim 25 depended directly from claim 22 and therefore there were no intervening claims.

Given the Examiner's indication of the allowability of claims 12 and 25, applicant submits that claims 1 and 22, as amended, are now in condition for allowance given the present amendments to those claims.

CONCLUSION

Applicant respectfully requests reconsideration of the instant application in view of the amendments indicated above.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Laurence B. Bond', is written over the typed name and address.

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